

Domestic Policies for Climate Change: Republic of Korea

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1. National Strategy for Green Growth

1.1 National Vision: Low Carbon, Green Growth

On 15 August 2008, in commemoration of the 60th anniversary of founding of the Republic of Korea (ROK), President Lee Myung-bak proclaimed “Low Carbon, Green Growth” as Korea’s new national vision for the next 60 years. This vision highlights a new development paradigm of quality-oriented growth on the use of new and renewable energy resources from quantity-oriented fossil-fuel dependent economic growth. Under the vision, “Low Carbon and Green Growth” not only emphasizes to use less energy and ensure environmental sustainability, but also to pursue the following three objectives¹: 1) to promote eco-friendly new growth engines for the national economy, 2) to enhance the quality of life for the members of the society, and 3) to contribute to the international efforts to fight the climate change that we face today.

1.2 What is Green Growth?

According to the Presidential Committee on Green Growth, the term “Green Growth”² was first promoted by the United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP) to instill a new development paradigm for fast developing Asian countries. The concept of Green Growth emphasizes that growth and environmental sustainability are not merely compatible objectives, but are mutually necessary for the future of humankind. It integrates objectives for poverty reduction, opportunity creation, and social development, with objectives for environmental sustainability and climate and energy security.

1.3 Presidential Committee on Green Growth and National Strategy

The Presidential Committee on Green Growth (PCGG) was established in February 2009 under the direct control of the Presidential to facilitate the realization of the new national vision, “Low Carbon, Green Growth” presented by President Lee on August 15th. The Committee consists of 47 members including relevant government ministers and representatives from stakeholders and has the mandate to discuss all subjects relevant to pursuing green growth as well as coordinating government works on this area. The

¹ Presidential Committee on Green Growth, Republic of Korea

² Ibid

Committee holds meetings in regular based and with one exception, all meetings were attended by the President. Through the Committee, Korean government has announced the 27 national strategies for Green IT (May 2009); finalized the Five-Year National Plan for Green Growth (July 2009); confirmed the 30% target reduction of national GHG emission below prospective estimate of emission by 2020 (November, 2009); announced enforcement of 'Framework Act on Low Carbon, Green Growth' (April, 2010); and launched Global Green Growth Institute (June, 2010).

The National Strategy for Green Growth has mid-(2009-2013) and long-term (2009-2050) perspective, with specific objective and actions plans. Announced on July 6th, 2009, the new national vision of Green Growth has policy objectives to ensure that ROK becomes the world's seventh largest green economic power by 2020 and the fifth largest by 2050. In addition, it has formulated the three strategies³ – 1) mitigation of climate change and energy independence, 2) creating new engines for economic growth, and 3) improvement in quality of life and enhanced international standing – for the implementation of the Low Carbon, Green Growth policy and ten key policy directions to achieve the national vision.

Figure 1.1 National Strategies

Mitigation of climate change & energy independence	Creating new engines for economic growth	Improvement in quality of life and enhanced international standing
1. Effective mitigation of greenhouse gas emissions	4. Development of green technologies	8. Greening the land, water and building the green transportation infrastructure
2. Reduction of the use of fossil fuels and the enhancement of energy independence	5. The "greening" of existing industries and promotion of green industries	9. Bringing green revolution into our daily lives
3. Strengthening the capacity to adapt to climate change	6. Advancement of industrial structure	10. Becoming a role-model for the international community as a green growth leader
	7. Engineering a structural basis for the green economy	

Source: Presidential Committee on Green Growth

1.4 East Asia Climate Partnership

³

Ibid

East Asia Climate Partnership was launched on July 2008 by the President Lee in order to identify a regional strategy for creating a win-win synergy between the climate and the economy by exploring a new sustainable economy-climate paradigm, thus identify an "East Asian Low Carbon Development Path."⁴ ROK has set an assistance package of 200 million USD (2008-2012) for developing countries in East Asia and for policy consultations on Low Carbon, Green Growth, and pilot projects for mitigation and adaptation technologies. It is important to note that it is the second largest ODA package in ROK, which clearly shows Korea's strong assistance in responding climate change issues and also promoting the Green Growth.

2. Policy Actions for Implementation

2.1 Midterm Target of GHG Mitigation (2020)

ROK, 9th largest emitter of the world representing non-Annex I countries, has declared the mid-term mitigation target of GHG emissions reduction by 30% relative to BAU by 2020 on November 17th, 2009⁵. This early voluntary mitigation action shows ROK's contribution to global emissions reduction and strong commitment on global climate change mitigation as a green growth initiative country.

2.2 Five-Year Plan for Green Growth

The Korean government has formulated the Five-Year Plan, from 2009 to 2013, and it has been reported the first of the Five-Year implementation plan has very ambitious investment. Under the plan, KRW 107 trillion (approximately US \$83.6 billion), which represents 2% of GDP, will be spent in the area of climate change and energy, sustainable transportation and the development of green technologies between 2009 and 2013⁶. According to the PCGG, the above budget will specifically spent on R&D in green technology including solar energy and fuel cells, restoration of the four major rivers and green transportation.⁷

2.3 Enforcement of 'Framework Act on Low Carbon and Green Growth'

The Korean government enacted the 'Framework Act on Low Carbon, Green

⁴ Ibid

⁵ Ibid

⁶ Presidential Committee on Green Growth, Road to Our Future: Green Growth.

⁷ Ibid.

Growth’ on January 13th, 2010, and it was promulgated on April 14th, 2010. The main purpose of the enactment of the Framework Act on Low Carbon, Green Growth was to 1) implement measures effectively address climate change and energy issues and promote sustainable development, 2) build the implementation system (i.e. PCGG) for green growth to implement low carbon green growth strategies in an efficient and systematic manner, and 3) to devise a variety of institutional system to promote low carbon, green growth in the region⁸.

2.4 Ten Policy Directions for achieving Three Objectives

As explained in the above section, in order to facilitate the realization of the new vision and national strategy for green growth, the Korean government has been set three main objectives and ten policy objectives⁹.

Three Objectives:

- 1) Mitigation of Climate Change and Energy Independence
- 2) Creating New Engines for Economic Growth
- 3) Improvement in Quality of Life and Enhanced International Standing

Ten Policy Directions:

- (1) Effective mitigation of GHG emissions
- (2) Reduction of the use of fossil fuels and the enhancement of energy independence
- (3) Strengthening the capacity to adapt to climate change
- (4) Development of green technologies
- (5) The “greening” of existing industries and promotion of new green industries
- (6) Advancement of Industrial Structure
- (7) Engineering a structural basis for the green economy
- (8) Greening the land, water and building the green transportation infrastructure
- (9) Bringing green revolution into our daily lives
- (10) Becoming a role model for the international community as a green growth leader

2.5 National Strategies for Green IT

The Korean Green Growth strategy seeks to promote the development of 27 core

⁸ Presidential Committee on Green Growth

⁹ Ibid.

green technologies¹⁰ that would provide future engines of growth to the Korean economy and they are:

- Expecting the change of climate and developmental technologies of modeling
- Estimating the influence of climate change and applied technologies
- High efficient and cheap technologies of the silicon-based solar battery
- Mass production of non-silicon-based solar cells and key original technologies
- Developing the technology of bio energy producing factors
- Designing and constructing techniques of upgraded light-water reactors
- Technologies of eco-friendly nuclear non-proliferation applied supercritical water reactors, and circulated nuclear fuel cycling systems
- Designing and constructing technologies of fusion reactor
- High efficient hydrogen manufacturing and hydrogen storing technology
- Fuel cell system technology of the next generation
- Eco-friendly environmental plant growth promoting technologies
- Integrated gasification combined technology and applied power generating technology
- Technologies for high efficiency and low pollution applied vehicles
- Intelligent transportation and distribution technologies
- Creating ecological space and urban generating technology
- Eco-friendly environment and low energy applied constructing technologies
- Green process technologies considering certain environmental loads and expectation of energy consumption
- Technologies maximizing the energy efficiency of LED for lighting and IT devices
- Technologies enhancing the efficiency of intelligent power network (power IT) and electrical devices
- Secondary cell producing technology of high efficiency
- Collecting, storing and processing CO₂
- Technology processing of Non-CO₂
- Estimating the quality of water and managing technology
- Technology procuring alternative water resources
- Reducing waste, recycling and energy making
- Monitoring and processing technology for harmful substances
- Technology of virtual reality

3. Conclusion

Green movement has been already initiated by many countries around the world. As discussed in this paper, ROK's green growth strategy is integrated and comprehensive economic development policy which also includes climate change policy. All the policy actions consisting Korea's green growth strategy will serve as the driver in three objectives discussed in the previous section – climate change and energy, creation of new growth engine, and contribution to international community. ROK believes that its unique case of being one transition from an emerging economy to a developed one places it on a good position to help other countries especially developing countries by promoting green growth strategy for the pursuit of global sustainable development.

Reference

¹⁰

Ibid

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